

**SECONDARY BURNER FOR SEALED COMBUSTION
CHAMBER OF A GAS-FIRED HOT WATER HEATER**

ABSTRACT

A secondary burner is provided in a sealed combustion chamber of a gas-fired hot water heater. The hot water heater has a support base for supporting it elevated from a floor surface. The sealed combustion chamber is supported over the base under an inner casing of the hot water heater which is adapted to contain water to be heated by a primary burner in the combustion chamber. An air inlet port is provided in the bottom wall of the combustion chamber to supply combustion air to the primary burner. The secondary gas burner perforated disc is secured entirely across the air inlet port and in direct unobstructed communication with the primary burner. The secondary gas burner perforated disc has holes throughout its inner surface whereby to ignite its an inner surface thereof in the presence of flammable vapors and air entering the gas burner perforated disc from an outer surface thereof. The support base has air inlet openings to permit ambient air supply to the outer surface.